

# **[ SYSTEM AND METHOD FOR DESIGN OF EXPERIMENTS USING DIRECT SURFACE MANIPULATION OF A MESH MODEL ]**

## **Abstract of Disclosure**

A system and method for design of experiments (DOE) using direct surface manipulation of a mesh model. The method includes the steps of selecting a geometric model in a computer-aided design (CAD) format, converting the geometric model into a mesh model and evaluating the mesh model using a computer-aided engineering (CAE) analysis. The method also includes the steps of determining whether to continue generating the design of experiments response, and modifying a surface of the mesh model by varying a predetermined parameter, wherein the surface is modified using direct surface manipulation (DSM), the mesh model is updated and the updated mesh model is used in continuing generating the design of experiments response, if determined to continue the design of experiments. The method further includes the steps of using the results of the CAE analysis for the design of experiments.

Figures

Figure 1: A line graph showing the relationship between the number of hours spent studying and the score on a test. The x-axis represents 'Hours Studied' (0 to 10) and the y-axis represents 'Test Score' (0 to 100). The data points are as follows:

Hours Studied	Test Score
0	50
1	55
2	60
3	65
4	70
5	75
6	80
7	85
8	90
9	95
10	100